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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,777	11/30/2001	Kazuhiko Morita	HOS-62	4620

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EXAMINER
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VO. HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/996,777

Applicant(s)

MORITA ET AL.

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07/06/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 16-22, 25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 16-22, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. The art rejections over Akao et al (US 5,492,741) taken alone are withdrawn in view of the present amendment. However, the art rejections over Akao et al (US 5,492,741) in view of Sheen et al (US 6,316,587) are maintained.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 16-22, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akao et al (US 5,492,741) in view of Sheen et al (US 6,316,587). Akao teaches a packaging material comprising a polyolefin foam layer 1 having a density of less than 0.5 g/cm<sup>3</sup>, a plurality of polyolefin layers 3a, 7a, 7a', 3a' laminated on at least one side of the polyolefin foam (abstract, figure 3). The outermost and innermost polyolefin layers 3a, 3a' have the same thickness of 25 microns and a melt flow rate of 5.0g/10min (column 47, lines 46 and 55). Akao teaches the laminated foam sheet of closed-cell type having a thickness ranging from 100 microns to 5 mm (example 1, column 3, lines 40-45). This reads on Applicants' laminated foam with the closed cell ratio at least greater than 60%. The foam density, the thickness of the outermost layer and the melt flow rate disclosed by Akao meet the specific ranges required by the claims. The recitation "a xylene soluble content of 0 to 5 wt%" does not necessarily require xylene be part of the laminated foam. Further, there is no

teaching or suggestion in the Akao invention that the xylene is used in combination with the foam. Akao discloses an antistatic agent being incorporated in the outermost layer of the packaging material in an amount of 0.01 to 10 wt% (column 42, lines 1-4). Sheen, however, discloses an antistatic bag comprising a polyamide antistatic agent made from a polyether esteramide (abstract, column 6, lines 15-17, column 2, lines 20-25). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the polyamide composition as taught in Sheen in the outermost layer of the packaging material motivated by the desire to prevent the build-up of static charges on the surface of the outermost layer. Since the outermost layer of Akao as modified by Sheen appears to be made from the same materials as that of the present invention. The resulting outermost layer is formed from a blend of the base polyolefin resin having a melt flow rate of 5.0 g/10min and the antistatic agent of polyether esteramide. Therefore, it is the examiner's position that the surface layer resistivity of the outermost layer and the ratio of a melt flow rate of the antistatic agent and a melt flow rate ratio of the base polyolefin resin would be inherently present. Like material would have like property. Products of identical chemical composition can not have mutually exclusive properties. *In re Spada*, 15 USPQ 2d 1655 (1990).

Akao fails to meet the thickness range of the innermost layer. However, since the thickness of the innermost layer is not critical to providing unexpected technical advantages, such a variable would have been recognized by one

skilled in the art as dependent upon the intended use of the product. As such, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the innermost layer 3a having a thickness instantly claimed motivated by the desire to improve the adhesion and strength of the laminate since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Akao is completely silent as to how to make an antistatic agent. Sheen, however, discloses a polyetheresteramide antistatic agent being used in an antistatic bag and how to synthesize it (column 3, line 21 et seq., column 4, lines 54 et seq). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the process of making polyetheresteramide as taught by Sheen to prepare the antistatic agent because it is a typical and practical method of synthesis of the polyamide composition.

Akao does not teach the laminated foam being made by a co-extrusion foaming. However, it is a product-by-process limitation not as yet shown to produce a patentably distinct article. It is the examiner's position that the laminated foam of Akao as modified by Sheen is slightly different than the claimed laminated foam prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity as discussed above. It is noted that if the applicant intends to rely on Examples in

the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Akao/Sheen.

### ***Response to Arguments***

4. The art rejections over Akao in view of Sheen have been maintained for the following reasons. Applicants argue that Akao relates to a cross-linked polyolefin foam sheet that is made by a normal-pressure hot-foaming method rather the presently claimed co-extrusion foaming process. Applicants go on and state that the difference is critical because the foam of Akao is a cross-linked foamed polyolefin resin while the foam of the present invention is non-crosslinked. The crosslinked polyolefin foam sheet of Akao has a degree of crosslinking (a boiling xylene-insoluble content) of not less than 10% whereas the non-crosslinked polyolefin foam of the present invention has a smaller boiling xylene insoluble content of 0 to 5wt%. The arguments are not commensurate in scope with the claims. As pointed out by Applicants, the degree of crosslinking is indicative of the xylene insoluble component. However, Akao is completely silent as to the xylene content and nothing in the claims is specific about the non-crosslinked polyolefin foam. Therefore, the foam of Akao is not structurally different from the foam of the present invention. Applicants argue that the coextrusion method of the laminated polyolefin foam of the present invention provides indicia of non-obviousness. The cells on the surface part of the foam layer made during a

coextrusion method are generally destroyed when brought into contact with an adjacent layer. Applicants argue that Akao fails to teach the destroying phenomenon of cells during co-extrusion foaming. Applicants further state that this destroying phenomenon of cells was discovered by the Applicants. The question is raised whether there is any significant difference in the closed cell content of the foam layer resulted in the destroying phenomenon of cells during co-extrusion. The answer is none. Turning to the claims, claim 1 notably recites that the closed cell content is at least 60% which is indicative of predominantly closed cell structure. Akao teaches the foam having a closed cell structure. Therefore, it is the examiner's position that the closed cell ratio of the presently claimed invention does not exclude the closed cell structure of the Akao invention. Applicants argue that Akao teaches away from the claimed invention because one skilled in the art would not be motivated to increase the strength of laminated foam by increasing the thickness of the resin layer laminated onto the foam. Applicants state that cells on a surface part of the foam are destroyed if the thickness of the resin layer laminated onto the foam is increased during co-extrusion. The arguments are not found persuasive for patentability because Akao does not produce the laminated foam by co-extrusion rather by adhesive lamination. Since increasing the thickness of the resin layer laminated onto the foam during adhesive lamination would not cause any cell destruction, one skilled in the art would be motivated to increase the strength of laminated foam by increasing the thickness of the resin layer laminated onto the foam during

adhesive lamination. Applicants argue that the melt flow rates alpha, beta of 3 to 35 g/10min and their ratio of at least 0.5 are critical to providing a composition having the required antistatic properties. The examiner agrees that the Muroi declaration clearly demonstrates the criticality of the melt flow rate ratio alpha/beta to providing satisfactory antistatic properties. However, the melt flow ratio alpha/beta is not critical to providing the unexpected results over the Akao/Sheen references for the following reasons. In view of the teaching from the Sheen invention, it is known in the art to go with an antistatic agent having higher molecular weight or higher melt flow rate for its long lasting antistatic property. The antistatic agent with low molecular weight or low melt flow rate easily migrates to the polymer surface and thus deteriorate the properties of the polymer. Sheen also teaches a loss of the antistatic property is due to washing or wiping. Therefore, it is known and obvious to vary the melt flow rate ratio alpha/beta to optimize the antistatic property of the surface layer. Discovering the optimum or workable ranges involves only routine skill in the art and is not patentable advance. Accordingly, varying the melt flow rate ratio alpha/beta to obtain the desirable antistatic properties as shown in the experiments 1 and 2 of the Muroi declaration is already known in the art and would not be considered as an unexpected result or a technical advance. Therefore, the Muroi declaration is not sufficient to overcome the art rejections as argued by Applicants. Further, Applicants disclose that the polyetheresteramide demonstrates an excellent antistatic performance regardless of the melt flow rate ratio alpha/beta (lines 20-



25, page 24 of the specification). It is respectfully submitted that the Muroi declaration is not commensurate in scope with the disclosure of the present invention. Accordingly, the art rejections are maintained.

**Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hai Vo  
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